

### **DETAILED ACTION**

Applicant's response and amendments filed 5 May 2008 have been received and entered.

This application is in condition for allowance except for the presence of claims 29, 30, 39-41, 46-47, 49-50, 53-54 directed to inventions non-elected without traverse. Accordingly, claims 29, 30, 39-41, 46-47, 49-50, 53-54 have been cancelled without prejudice or disclaimer.

Claims 31-36, 43-45, 51, 56-59 and 61 are pending.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 21 February 2008 has been considered by the examiner, and a signed, initialed copy is included with this communication.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jan Tittle on 14 August 2008.

The application has been amended as follows:

Claims 29, 30, 39-41, 46-47, 49-50, 53-54 have been canceled.

31. (currently amended) A method to identify chondrocyte cells having chondrocyte phenotypic stability comprising:

(1) determining the expression by said cells of a positive marker of chondrocyte phenotypic stability which is bone morphogenic protein-2 (BMP-2) and/or determining the expression by said cells of a positive marker of chondrocyte phenotypic stability which is fibroblast growth factor receptor 3 (FGFR-3) and the absence of expression of a negative marker which is activin-like kinase-1 (ALK-1); and

(2) identifying said cells expressing said BMP-2 and/or ~~expressing~~ said cells expressing FGFR-3 and not said ALK-1, as cells having chondrocyte phenotypic stability.

32. (currently amended) A method to identify chondrocyte cells having chondrocyte phenotypic stability according to claim 31 comprising:

1) ~~determining in said cells expressing said BMP-2 that activin-like kinase-1~~  
(ALK- 1) is not expressed by said cells expressing said BMP-2; and

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2) identifying said cells expressing said BMP-2 and not expressing said ALK-1 marker, as a cell population having chondrocyte phenotypic stability.

33. (currently amended) The method to identify chondrocyte cells having chondrocyte phenotypic stability according to claim 31, comprising:

a) hybridising to messenger RNA from chondrocyte cells, sets of DNA probes provided on DNA arrays or DNA chips, said DNA probes being probes of said positive markers for chondrocyte phenotypic stability BMP-2 and/or said FGFR-3; and

b) hybridising to messenger RNA from chondrocyte cells, sets of DNA probes provided on DNA arrays or DNA chips, said DNA probes being probes of said negative markers for chondrocyte phenotypic stability ALK-1; and

c) identifying those cells which hybridise with said probes of said positive markers and do not hybridise with said probes for said negative markers for chondrocyte phenotypic stability.

34. (currently amended) The method to identify phenotypically stable chondrocytes according to claim ~~35~~ 34, said method comprising detecting said positive marker in cells from a cartilage biopsy, after at least one passage.

***Conclusion***

Claims 31-36, 43-45, 51, 56-59 and 61 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMANDA P. WOOD whose telephone number is (571)272-8141. The examiner can normally be reached on M-F 8:30AM -5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

APW  
Examiner  
Art Unit 1657

/Ralph Gitomer/  
Primary Examiner, Art Unit 1657